

ORIGINAL

Use Attainability Analysis

For

WBID 0701 Missouri River

Submitted by

City of Jefferson Wastewater Division

To

Missouri Department of Natural Resources  
Water Protection Program

The Missouri River in this area features a rapid flow rate (61,000 cfs per the USGS at the time of this study). The current use designations for the Missouri from the Chariton to the Gasconade includes irrigation, livestock & wildlife watering, aquatic life/fish consumption, boating and canoeing, drinking water supply and industrial. The proposed designation set for rulemaking in 2006 is whole body contact recreation. The State of Missouri does not recommend swimming due to the strong currents and presence of high bacteria counts.

Due to high bluffs generally on the south side of the River, there are not many public accesses on the river stretch near the area of the discharges. Some of the banks which are not steep bluffs include a sand dredging operation, and restricted access at the National Guard Training Facility and the Algoa Correctional Center (a prison). Just upstream of the confluence with the Osage River, the River has been dredged to promote the propagation of pallid sturgeon. Access is limited to the public except via the Moreau and Osage Rivers by boat. From interview data, there is mention of boating and wading activity at this location.



Private Property posting at the confluence of the Osage & Missouri.

The City of Jefferson operates two NPDES facilities that discharge to the Missouri River. The Jefferson City Regional Water Reclamation Facility discharges approximately 9.1 MGD (14 cfs) into the Missouri approximately 2700 feet downstream of the Highway 54-63 Missouri River Bridge.

The Algoa Regional Wastewater Treatment Facility discharges approximately 0.75 MGD (1.2 cfs) into the Missouri approximately 7100 feet downstream of the confluence of the Moreau and Missouri River.

The Missouri Department of Conservation studied recreational uses of the Missouri from January 2004 until January 2005. The compiled data has not currently been presented. The results are scheduled to be presented in the Summer of 2006. Information for this

UAA was obtained by interviewing the survey staff from their best recollections. Information from these interviews identifies predominately fishing with some wading at the Mokane access and immersion directly across (south) of the Mokane access. Interviews indicate there is activity at the sand bar at the Osage-Missouri confluence where the public accesses the gravel bar by boat after traveling from the Osage river access.

Primary contact use is not feasible on this waterbody. Removal of primary contact designated use of whole body contact recreation is recommended based the following from 40CFR 131.10 (g)

- (1) *Naturally occurring pollutant concentrations prevent the attainability of the use.* From sampling of River water upstream of the Jefferson City facilities, coliform counts range from absent to 67,000 colonies. Only one 30-day period passed the 400/100 ml arithmetic mean (monthly average). The River currently does not support primary contact.

River samples taken upstream of Jefferson City Treatment Facility. Note that September, 2000 is only data set that meets the ambient 400/100ml arithmetic mean.

Date	Coliform/100ml
3/4/2000	3000
3/11/2000	2000
3/18/2000	21,000
8/5/2000	2000
8/12/2000	1000
8/26/2000	5000
9/9/2000	Absent
9/16/2000	0
9/23/2000	1000
9/30/2000	16,000
10/7/2000	9,000
10/14/2000	10,000
10/28/2000	2,000
11/4/2000	4,000
11/11/2000	9,000
11/18/2000	10,000
11/25/2000	18,000
12/2/2000	7,000
12/9/2000	10,000
12/16/2000	14,000
12/23/2000	9,000
12/30/2000	1,000
1/6/2001	5,000
1/13/2001	Absent
1/20/2001	17,000

1/27/2001	Absent
2/3/2001	34,000
2/10/2001	67,000
2/17/2001	48,000

(4) *Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the waterbody to it's original condition or to operate in a way that would result in attainment of the use.* The River is channelized to support barge traffic. This has made the channel a target 9-foot deep and a rapid flow rate that does not provide for safe immersion.

---

INTERVIEW

DATE: 12JUL05

IDENTITY: David Schmitz, Survey Clerk for MDC. 1313 Raymond Rd, Jefferson City.

ACTIVITY WITNESSED: Fishing. No swimming downstream of Noren access.

INTERVIEWED BY: es

INTERVIEW

DATE: 12JUL05

IDENTITY: Danny Williams, Survey Clerk for MDC. Address unknown.

ACTIVITY WITNESSED: Wading at the Mokane access. Some immersion directly across (south) from Mokane access. Heard that there is much activity at the Osage River – Missouri River confluence.

INTERVIEWED BY: es

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet A - Water Body Identification**

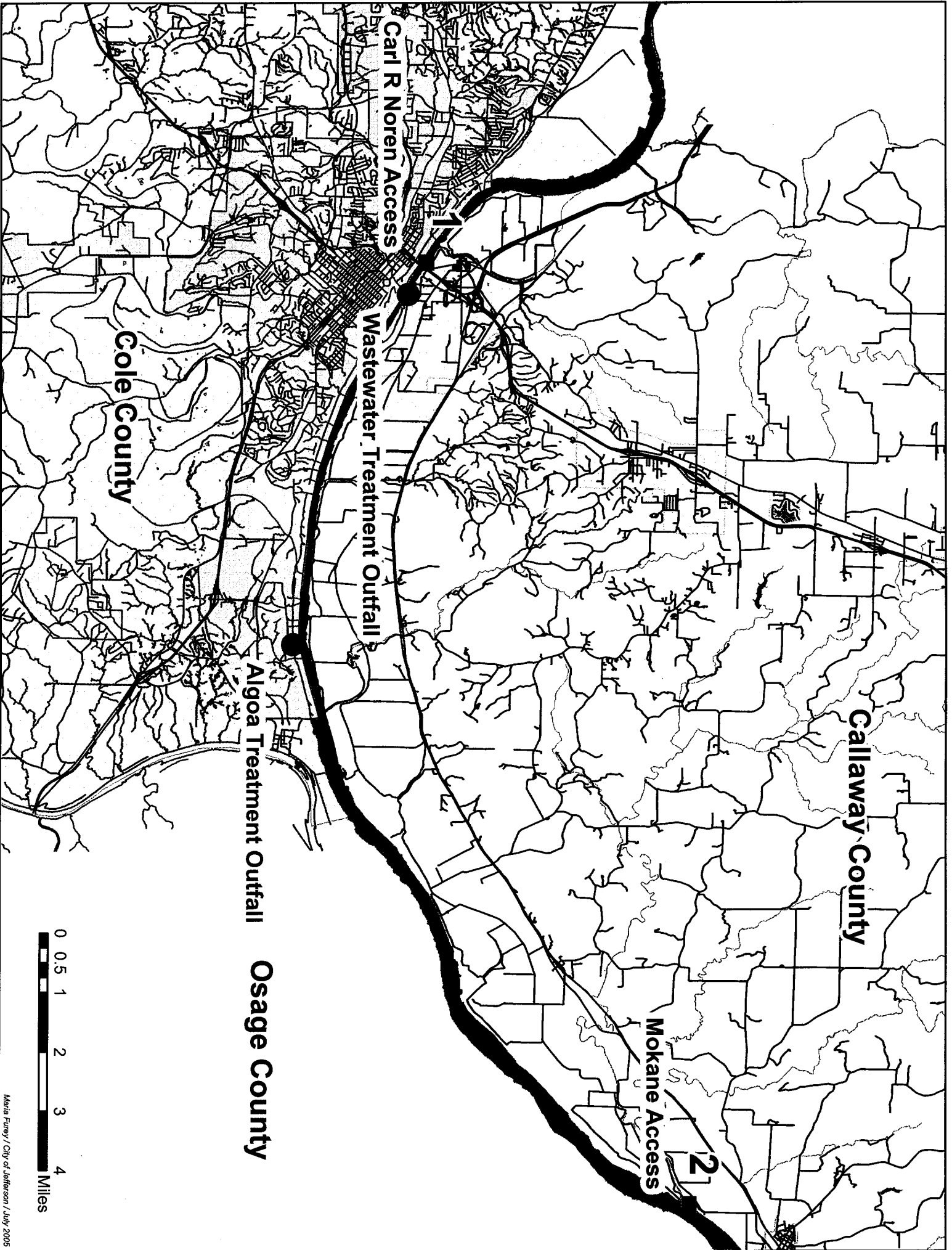
RECEIVED

2005 JUL 13 PM 4:17

Water Body Name (from USGS 7.5' quad):	Missouri River	WATER PROTECTION PROGRAM
8-digit HUC:	10300102	
Missouri WBID #:	0701	
County:	Callaway/Cole	
Upstream Legal Description:	SW 1/4 NW 1/4 Section 16 T44N R11W	
Downstream Legal Description:	NW 1/4 SE 1/4 Section 24 T45N R9W	
Upstream Coordinates:	X 1732109.91 Y 1003448.45 State Plane	
Downstream Coordinates:	X 1815957.85 Y 1026886.32 State Plane	
Discharger Facility Name(s):	City of Jefferson Regional Water Reclamation Facility Alcoa Regional Wastewater Treatment Facility	
Discharger Permit Number(s):	RWRF: MD-0094846 Alcoa: MD-0044300	
Number of Sites Evaluated:	2	
Name of Surveyor and Telephone Number:	Eric Seaman 573-634-6443 Jefferson City Wastewater Division	
Organization:	Jefferson City Wastewater Division	
Position:	Director	

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Eric Seaman Date: 13 JUL 05



## Field Data Sheets for Recreational Use Stream Surveys

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: <i>0701 - "1"</i>	Site Location Description: <i>"1"</i>	
Site GPS Coordinates: <i>X 1732104.59 State</i> <i>Y 1003448.45 Place</i>	<i>Naren Access</i>	
Date & Time: <i>11JUL05 12:40pm</i>	Facility Name:	
Personnel: <i>Eric Seaman</i>	Permit Number:	
Current Weather Conditions: <i>Overcast, 90's</i>	Weather Conditions for Past 7 days: <i>Sunny, 90's</i>	
Photo Ids: Upstream:	Downstream:	Other:

#### **Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input checked="" type="checkbox"/> Kayaking	<input checked="" type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input checked="" type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input checked="" type="checkbox"/> Other: <i>Canoe</i>
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

#### **Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input checked="" type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input checked="" type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

#### **Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

Page Two – WBID # 0701:

### Stream Morphology:

#### Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>1000</u>	Length (ft):	Avg. Depth (ft): <u>10.29</u>	Max. Depth (ft):
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>~ 61,000 per USGS</u>		

#### Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>1000</u>	Length (ft):	Avg. Depth (ft): <u>10.29</u>	Max. Depth (ft):
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>~ 61,000 per USGS</u>		

**Substrate\*:** (These values should add up to 100%.)

% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
----------	----------	--------	--------	------------	-----------

**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

<u>None visible</u>
---------------------

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input checked="" type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input checked="" type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

**Comments:** Please attach additional comments (including information from interviews) to this form.

See Interview with David Schmitz, Survey Clerk for MDC

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

**I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.**

Signed: [Signature] Date: 11 JUL 05

Organization: Jefferson City WWD Position: Director



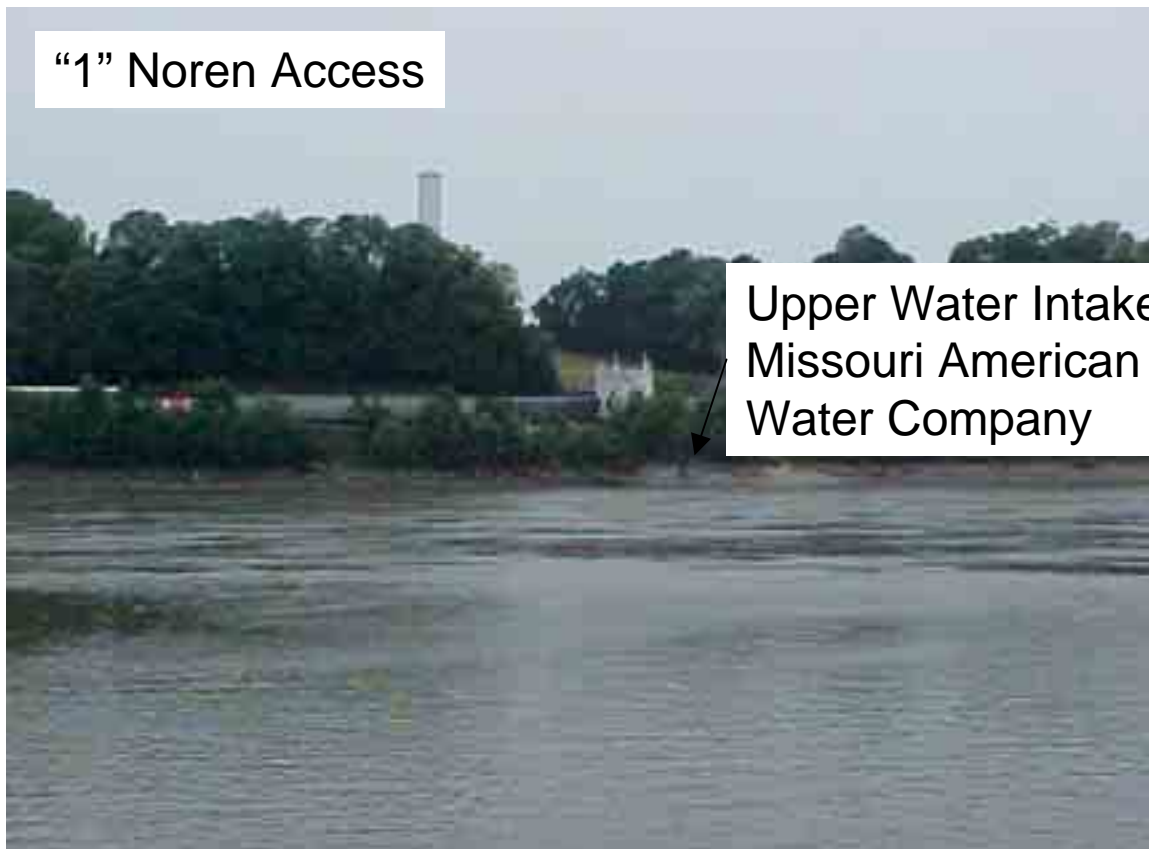
“1” Noren Access - Upstream



“1” Noren Access  
Downstream



“1” Noren Access



Upper Water Intake-  
Missouri American  
Water Company

“1” Noren Access



Postings for Fishing

## "1" Noren Access



Large Trailer & Boat Parking Lot

## "1" Noren Access



## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: <u>0701 - "2"</u>		Site Location Description: <u>"2"</u>  <u>Mokuna Access</u>
Site GPS Coordinates: <u>X 1815957.85</u> <u>Y 1026886.32</u> <u>State Plane</u>		
Date & Time: <u>13 JUL 05</u> <u>11:30am</u>		Facility Name:
Personnel: <u>Eric Seaman</u>		Permit Number:
Current Weather Conditions: <u>Sunny 80's</u>		Weather Conditions for Past 7 days: <u>Sunny 90's, Light Rain</u>
Photo Ids: Upstream:	Downstream:	Other:

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input checked="" type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input checked="" type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input checked="" type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

#### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Page Two – Data Sheet B for WBID # 0701 :

**Stream Morphology:**

**Upstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>~1200</u>	Length (ft):	Avg. Depth (ft): <u>~7'</u>	Max. Depth (ft):
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>~53,000 pgr USGS</u>	

*Missouri River @ Boonville 44,200*

*Osage below St. Thomas 8,350*

**Downstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>~1200</u>	Length (ft): <u>~</u>	Avg. Depth (ft): <u>~7'</u>	Max. Depth (ft):
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>~53,000</u>	

**Substrate\*:** (These values should add up to 100%.)

% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
----------	----------	--------	--------	------------	-----------

**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

--

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input checked="" type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input checked="" type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

**Comments:** Please attach additional comments (including information from interviews) to this form.

*See Interview with Danny Williams, MDC Survey Clerk*

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

**I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.**

Signed: *Jim Hamm* Date: *13 JUL 05*

Organization: *Jefferson City WND* Position: *Director*



“2” Mokane Access - Upstream



“2” Mokane Access  
Downstream



**"2" Mokane Access**

Trailer & Boat Parking



WELCOME  
TO  
MOKANE  
PUBLIC FISHING ACCESS  
MISSOURI  
CONSERVATION  
DEPARTMENT